Joint FAO/IAEA Centre
Nuclear Techniques in Food and Agriculture

Murdoch University | Centre for Crop and Food Innovation

State Agricultural Biotechnology Centre
WESTERN AUSTRALIA

VIRTUAL MASTERCLASS/ WORKSHOP ON HARNESSING FUNCTIONAL GENOMICS AND MUTATION BREEDING FOR CROP IMPROVEMENT

14-15 May 2026

10:00 CENTRAL EUROPEAN TIME
16:00 AUSTRALIAN AWST TIME

Link to the Master Class:

https://teams.microsoft.com/meet/327648144838491?p=ajubZkzGqg5904Q5D

THE SPEAKER LINEUP

POOJA BHATNAGAR-MATHUR
Plant Breeding and Genetics Section,
Joint FAO/IAEA Centre

FATMA SARSU
Plant Breeding and Genetics Section,
Joint FAO/IAEA Centre

ANU CHITIKINENI
Centre for Crop and Food Innovation (CCFI)

RAJEEV VARSHNEY
Centre for Crop and Food Innovation (CCFI) &
WA State Agricultural Biotechnology Centre

PETER DAVIES
Food Futures Institute, Murdoch University

REYAZ MIR
Centre for Crop and Food Innovation (CCFI)

YAN HUANG
Centre for Crop and Food Innovation (CCFI)

VANIKA GARG
Centre for Crop and Food Innovation (CCFI)

ALEGRASAN GANESHAN
Centre for Crop and Food Innovation

RYOHEI TERAUCHI
Laboratory of Crop Evolution, Iwate Biotechnology Research Center, Kyoto University

SOFIE PEARSON
The University of Queensland

NDEYE NDACK DIOP
Food and Agriculture Organization of the United Nations (FAO)

CHRISTOPH DOCKTER
Cereal Breeding & Trait Development,
Carlsberg Research Laboratory

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Virtual Master Class/Workshop on

Harnessing Functional Genomics and Mutation Breeding for Crop Improvement

(May 14-15, 2026)

The purpose of this Master Class is to strengthen participants' understanding of the integration of functional genomics and mutation breeding approaches for accelerating crop improvement. The Master Class will highlight how genomic tools can be used to identify and validate gene-trait associations, and how these insights can be effectively applied within mutation breeding programmes. It aims to enhance the capacity of Member States to develop climate-resilient, high-performing crop varieties through innovative, science-based breeding strategies, while fostering knowledge exchange on emerging technologies and best practices.

*Blue - CET time
*Black - AWST time
*Red - Speaker time

Program – 14th May 2026 - Thursday		
*10:00 - 10:05 hrs *16:00 - 16:05 hrs	Welcome	Ms. Anu Chitikineni Senior Science Manager - CCFI Australia
*10:05 - 10:15 hrs *16:05 - 16:15 hrs	Introduction & Overview	Prof. Rajeev Varshney Director, Centre for Crop and Food Innovation (CCFI) & WA State Agricultural Biotechnology Centre, Murdoch University Perth, Australia
*10:15 - 10:25 hrs *16:15 - 16:25 hrs	Opening remarks and perspectives from the Joint FAO/IAEA Centre	Dr. Pooja Bhatnagar-Mathur Section Head - Plant Breeding & Genetics, Joint FAO/IAEA Centre of Nuclear Techniques in Food and Agriculture Vienna, Austria
*10:25 - 10:35 hrs *16:25 - 16:35 hrs	Opening remarks	Prof. Peter Davies Pro Vice-Chancellor Food Futures Institute Murdoch University Perth, Australia
*10:35 - 10:45 hrs *16:35 - 16:45 hrs	About the CRP and Capacity Building	Ms Fatma Sarsu Plant Breeder/Geneticist Joint FAO/IAEA Centre of Nuclear Techniques in Food and Agriculture Vienna, Austria
*10:45 - 11:15 hrs *16:45 - 17:15 hrs	Mutation Breeding in the Genomics Era: Lessons from the Past and Paths for the Future	A/Prof. Reyaz Mir Centre for Crop and Food Innovation Murdoch University Australia
*11:15 - 11:35 hrs *17:15 - 17:35 hrs	Harnessing Modern Sequencing and SNP Genotyping for Crop Functional Genomics	Ms. Anu Chitikineni Senior Science Manager - CCFI Australia
*11:35 - 12:15 hrs *17:35 - 18:15 hrs *18:35 - 19:15 hrs	MutMap: Overview and applications & demo	Prof. Ryohei Terauchi Laboratory of Crop Evolution, Iwate Biotechnology Research Center Kyoto University Japan
*12:15 - 12:30 hrs *18:15 - 18:30 hrs	*Break*	

*12:30 - 13:00 hrs *18:30 - 19:30 hrs *12:30 - 13:00 hrs	Just FIND-IT: Harnessing the true power of induced mutagenesis	Prof. Christoph Dockter Cereal Breeding & Trait Development, Carlsberg Research Laboratory Sweden
Program – 15th May 2026 - Friday		
*10:00 - 10:10 hrs *16:00 - 16:10 hrs	*Recap of previous day*	
*10:10 - 10:40 hrs *16:10 - 16:40 hrs *18:10 - 18:40 hrs	Harnessing global germplasm diversity to enhance breeding potential and accelerate crop improvement in cowpea & demonstration of genetic analyses in R	Dr. Sophie Pearson The University of Queensland Australia
*10:40 - 11:10 hrs *16:40 - 17:10 hrs *10:40 - 11:10 hrs	Genomics and capacity building	Dr Ndeye Ndack Diop Agriculture Officer, Plant Production and Protection Division Food and Agriculture Organization of the United Nations (FAO) Rome
*11:10 - 11:40 hrs *17:10 - 17:40 hrs	Next generation sequencing and Variant calling demo	Yan Huang Centre for Crop and Food Innovation Murdoch University Australia
*11:40 - 12:10 hrs *17:40 - 18:10 hrs	Bioinformatics workflow for QTL-Seq analysis	Vanika Garg Centre for Crop and Food Innovation Murdoch University Australia
*12:10 - 12:20 hrs *18:10 - 18:20 hrs	Break	
*12:20 - 12:40 hrs *18:20 - 18:40 hrs	Genomic selection approaches for crop improvement	Alagarasan Ganesan Centre for Crop and Food Innovation Murdoch University Australia
*12:40 - 12:50 hrs *18:40 - 18:50 hrs	Summary from MU	Prof. Rajeev Varshney

*12:50 - 12:55 hrs *18:50 - 18:55 hrs	Closing remarks from the Joint FAO/IAEA Centre	Dongxin Feng Director - Joint FAO/IAEA Centre of Nuclear Techniques in Food and Agriculture Vienna, Austria
*12:55 - 1:55 hrs *18:55 - 19:00 hrs	Vote of thanks from MU	Ms. Anu Chitikineni Senior Science Manager - CCFI